PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference									
8484 WO S GI-FRI	FOR FURTHER ACTION	See Form PCT/IPEA/416							
International application No.	International filing date (day/mor	nth/year) Priority date (day/month/year)							
PCT/EP2004/000296	16.01.2004	21.01.2003							
International Patent Classification (IPC) or	national classification and IPC								
F16D 13/62, F16B 21/18									
Applicant									
ZF FRIEDRICHSHAFEN	AG								
This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.									
2. This REPORT consists of a total	. F								
	should be discovered and the should be s								
	t and to the International Bureau) a total								
sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).									
sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.									
6 (sent to the Internati	onal Bureau only) a total of (indicate ty	pe and number of electronic carrier(s))							
related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).									
4. This report contains indications									
	of the report								
	stablishment of opinion with regard to r	ovelty, inventive step and industrial applicability							
K-3	of unity of invention								
Box No. V Reaso citatio	Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement								
Box No. VI Certai	n documents cited								
Box No. VII Certai	Box No. VII Certain defects in the international application								
Box No. VIII Certai	Box No. VIII Certain observations on the international application								
Date of submission of the demand		mpletion of this report							
33 333 233333	Date of co	implement of this report							
Name and mailing address of the IPEA/		i officer							
	Authorized	a officer							
Facsimile No.	Telephone	Telephone No							

Translation

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/000296

Box	No. I	Basis of the report				
1.	With reg	gard to the language, this report is based on the internation d under this item.	al application in the language in	which it was filed, unless otherwise		
	Th wh	nis report is based on translations from the original languag hich is the language of a translation furnished for the purpo	e into the following language ses of:	,		
	<u>_</u>	international search (Rule 12.3 and 23.1(b))				
	F	publication of the international application (Rule 12.4)				
		international preliminary examination (Rule 55.2 and/o	·			
2.	With regard to the elements of the international application, this report is based on (replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):					
	Lh the	e international application as originally filed/furnished				
	∑ th	e description:				
	pa	ages 1-9		as originally filed/furnished		
i	pa	ages*	received by this Authority on			
	pa	ages*	received by this Authority on			
	M th	ne claims:				
	no	os.		as originally filed/furnished		
	no	os.*				
	no	os.* <u>1-12</u>		22.03.2005 with letter		
	no	os.*				
	M th	ne drawings:	•			
	sì	heets 1/4-4/4		as originally filed/furnished		
ļ	sł	heets*		as originally mediumsied		
	sł	heets*				
	\Box .	sequence listing and/or any related table(s) - see Supplem				
_			ental Box Relating to Sequence I	asting.		
3.		The amendments have resulted in the cancellation of:				
		the description, pages				
Ì		the claims, nos.				
	<u> </u>					
		the sequence listing (specify):				
4.	L	any table(s) related to sequence listing (specify):				
7.	ن لــا ۲	This report has been established as if (some of) the amend hey have been considered to go beyond the disclosure as fi	led, as indicated in the Suppleme	ntal Box (Rule 70.2(c)).		
		the description, pages				
1	L	the claims, nos.				
	L	the drawings, sheets/figs				
	L	the sequence listing (specify):				
	L	any table(s) related to sequence listing (specify):				
*	If item	4 applies, some or all of those sheets may be marked "sup	erseded."			

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Box	No. V Reasoned statemer citations and expla	nt under Ar mations sup	ticle 35(2) with regard to novelty, inventive step or industrial applicability;	
1.	Statement			
	Novelty (N)		2, 5-9, 11, 12	YES
		Claims	1, 3, 4, 10	NO
	Inventive step (IS)	Claims		YES
		Claims	1-12	NO
	Industrial applicability (IA)	Claims	1-12	YES
		Claims		NO

- 2. Citations and explanations (Rule 70.7)
 - 1. Reference is made to the following documents:

D1: US-A-4018318

D2: EP-A-0415027

D3: GB-A-1477831.

2. The present application fails to satisfy the requirements of PCT Article 33(1) because the subject matter of claim 1 lacks novelty (PCT Article 33(2)).

Document D1 discloses (the references in parentheses are to said document, see figures 4 and 5):

an arrangement for the axial support of two co-rotating components (2, 5) by means of a circlip (15) with two impinging ends (18, 19) which are separated by a circumferential gap and are moveable within a radial area of excursion, said circlip being inserted into an annular groove (6) in the supporting component (5); and the component (2) that is

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Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

to be supported comprising two ramps (20, 21) within the area of radial excursion of the impinging ends (18, 19) of the circlip (15); and the ramps (20, 21) and the component (2) to be supported being formed as a single piece (figures 4 and 4; column 3, lines 60-66) and one ramp being associated with each impinging end (18, 19) of the circlip (15).

The subject matter of claim therefore lacks novelty.

- Dependent claims 2-12 contain no features which, combined with the features of any claim to which they refer, meet the PCT requirements for novelty and/or inventive step:
- 3.1 Document D1 likewise discloses the subject matter of claims 3, 4 and 10. This subject matter therefore lacks novelty.
- 3.2 Dependent claims 2 and 5 concern only minor structural modifications of the arrangement according to claim 1, said modifications being of the kind that a person skilled in the art routinely makes on the basis of familiar considerations. In consequence, the subject matter of claims 2 and 5 does not involve an inventive step.

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3.3 The features of dependent claims 6-9, 11 and 12 have already been used for the same purpose in a similar arrangement (see document D2, in particular column 2, lines 2-49; document D3, in particular page 4, lines 35-41). For a person skilled in the art, it was therefore obvious also to apply said features to like effect in an arrangement as per document D1; in this way, he would arrive at an arrangement as per claims 6-9, 11 and 12.